

Berkeley Lab Overview



What Makes Berkeley Lab a National Laboratory?



Operates User Facilities

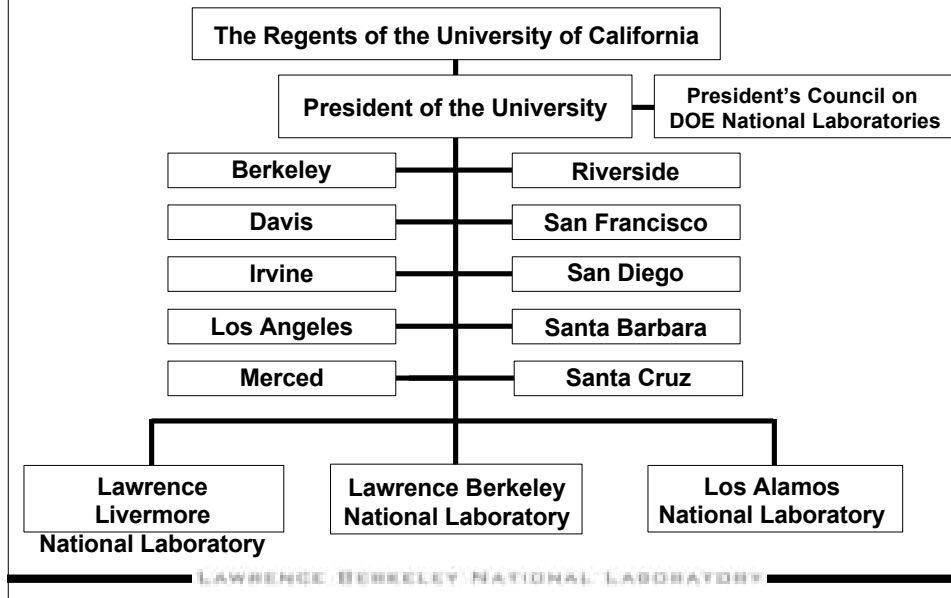
Solves Complex Problems of Scale



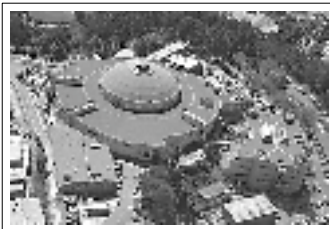
Undertakes Interdisciplinary, Collaborative Research

LAWRENCE BERKELEY NATIONAL LABORATORY

The University of California: Ten Campuses and Three Laboratories



Serving the National Scientific/University Community: Berkeley Lab National User Facilities



Advanced Light Source



National Energy Research Scientific Computing Center

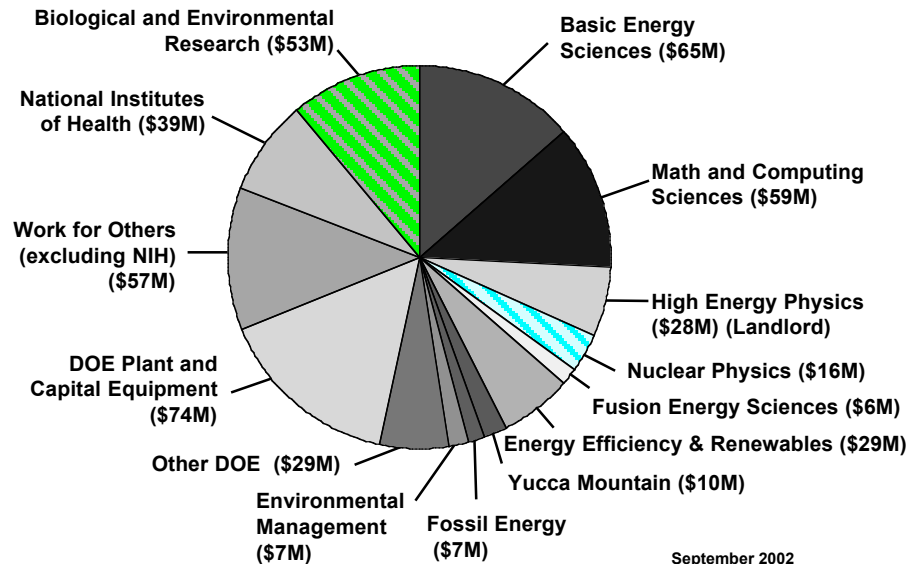


88-Inch Cyclotron



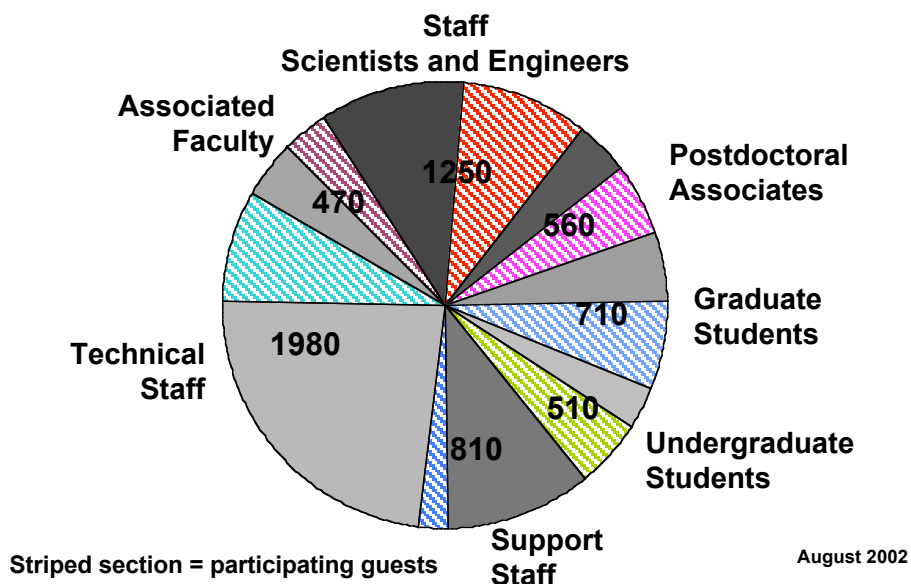
National Center for Electron Microscopy

FY 2002 Costs: \$479M



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Berkeley Lab Staff and Guests: 6300



Computing

**Applied
Mathematics**

**National Energy
Research Scientific
Computing Center**

Tools for Discovery

**Computer
Science
Research**

**Science Grid and
Energy Sciences
Network**

Computational Science Integrated in All Programs

NERSC III at the Oakland Scientific Facility



- 2048 processor/ 4 teraflops: most powerful unclassified computer in the world
- New Machine Room: 20,000 sf, (option to 40,000 sf)
- Facility dedication May 2001



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Biosciences

*A Predictive Science: Integrated with the
Physical Sciences, Computing, and Engineering*

Genomics

**Cell and Tissue
Organization**

**Quantitative
Biology**

**Structural
Biology**

**Computational
Biology**

**Quantitative
Imaging**

Joint Genome Institute Highlights



- Draft sequence of human chromosomes 5, 16, and 19 completed



- Syntenic mouse chromosome 19 sequencing under way



- Puffer fish (Fugu) is next target organism: compact genome (300 megabases)



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